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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,579	07/19/2006	Reiner Kunstle	4241 PCTUS FR/eb (60729.O)	7388
69638 7590 12/29/2009 KAMRATH & ASSOCIATES P.A. 4825 OLSON MEMORIAL HIGHWAY SUITE 245 GOLDEN VALLEY, MN 55422			EXAMINER NGUYEN, XUAN LAN T	
			ART UNIT 3657	PAPER NUMBER
			MAIL DATE 12/29/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,579	<b>Applicant(s)</b> KUNSTLE ET AL.	
	<b>Examiner</b> Lan Nguyen	<b>Art Unit</b> 3657	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9 and 12-20 is/are rejected.
- 7) ☒ Claim(s) 6,8,10 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)                  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application        |
| Paper No(s)/Mail Date _____  | 6) <input checked="" type="checkbox"/> Other: <u>approved drawings</u> . |

## DETAILED ACTION

### *Drawings*

1. The drawings were received on 8/28/09. These drawings are approved.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-5, 7, 9, 12, 13, 16, 17 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Beringer's Aeronal brake disc as described in Applicant's specification page 1.

Re: claims 1, 12, 13, 16 and 17, Beringer shows a brake disk for a disk brake, in particular for motor cycles or bicycles, as in the present invention, comprising: a brake band made of steel and an inner part made of aluminum for fixing on a hub, the brake band having a plurality of extensions and the inner part having a plurality of extensions wherein the extensions are connected by bolts, connecting the brake band to the inner part, with the bolts received in recesses formed in the plurality of extensions to transfer force transmitted from the brake band via the bolts to the inner part, and the connecting line with an angle about 12 degrees. Claim 1 requires the angle to be from 15 degrees to 85 degrees. It is interpreted that "about 12 degrees" would include 15 degrees.

Re: claims 3-5, 7, 9 and 20, Beringer teaches these claimed features.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beringer's Aeronal brake disc as described in Applicant's specification page 1.

Beringer's brake disc, as rejected above, shows the angle to be about 12 degrees while claim 2 requires the angle to be approximately 30 degrees. The concept of providing an angle at the connection for the brake band and the inner part has been taught by Beringer. A variation in the angle is considered to be a routine and is obvious for one of ordinary skills in the art since varying the taught concept in order to further refining a feature or to correct a certain defect in the feature is a routine in an engineering design process in order to strive for a desired result.

6. Claims 15, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beringer's Aeronal brake disc as described in Applicant's specification page 1, in view of Gehrs (USPub. 2005/0082125).

Re: claim 15, Beringer's brake band is silent of any holes or slots. Gehrs is cited to teach the concept of providing slots 27 in the brake band of Gehrs' brake disc. It would have been obvious to one of ordinary skill in the art at the time the invention was

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made to have included slots as taught by Gehrs in the brake band of Beringer in order to increase cooling of the brake band during a braking operation.

Re: claims 18 and 19, Gerhrs further teaches various designs of the struts in order to provide strength to the inner part while being light weight. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the various strut designs as taught by Gehrs in the inner part of Beringer in order to provide strength to the inner part while being light weight .

7. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beringer's Aeronal brake disc as described in Applicant's specification page 1, in view Seymour (6,467,589).

Beringer's disc, as rejected above, lacks the corrugation. Seymour teaches in figures 4 and 5 the alternative shapes of a brake disc wherein the disc in figure 5 is corrugated in order to further reducing weight while maintaining the strength of the disc. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Beringer's disc to comprise the corrugated shape as taught by Seymour in order to reduce weight while maintaining the strength of the disc.

#### ***Allowable Subject Matter***

8. Claims 6, 8, 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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9. It is found that the concept of having the angle of the line of connecting in the front of the recess to be different from the angle of the line of connecting in the rear of the recess, as shown in figures 6-10, defines over the prior art of record. It is also found that the recess having an angular range of more than 180 degrees defines over the prior art of record.

### ***Response to Arguments***

10. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejection have been necessitated by Applicant's amendments.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571) 272-7121. The examiner can normally be reached on Monday through Friday, 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Xuan Lan Nguyen/  
Primary Examiner  
Art Unit 3657